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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,534	11/01/2001	Tae-Sung Jung	678-768(P9939)	3265
66547 7590 05/21/2007 THE FARRELL LAW FIRM, P.C. 333 EARLE OVINGTON BOULEVARD SUITE 701 UNIONDALE, NY 11553			EXAMINER BLAIR, DOUGLAS B	
			ART UNIT 2142	PAPER NUMBER
			MAIL DATE 05/21/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/002,534	Applicant(s) JUNG, TAE-SUNG	
	Examiner Douglas B. Blair	Art Unit 2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Claims 1-8 are currently pending in this application. Claims 1 and 4 have been amended.

Response to Arguments

2. Applicant's arguments filed 2/28/2007 have been fully considered but they are not persuasive.
3. First the applicant argues that the newly amended limitation that stipulates that "location information of a mobile node and information about the VPN service for the MN are stored when the HA receives from the MN a location registration request message for the VPN service" distinguishes the claims over Tummala. The Examiner disagrees. Col. 8, lines 22-44 describe the registration of the mobile node. The registration request is created (col. 8, lines 26-27). The request is relayed from the mobile node to the home agent (col. 8, lines 27-34). In col. 8, lines 35-44, the home agent responds to the request from the mobile node by sending a response back to the mobile node. The home agent would not be able to respond back to the mobile node without knowing how to locate the mobile node, thus location information of the mobile node is stored at the home agent. The home agent has information about the AAA server (col. 9, lines 27-28). The AAA servers create the VPN (col. 9, lines 33-39). Therefore by having information about the AAA server that creates the VPN, the home agent has stored "information about the VPN service as claimed". The applicant does not claim anything specific about "location information" or "information about the VPN service".

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4. Next the applicant argues Tummala does not disclose a foreign agent that transmits data to an ISP router of a FA network when receiving a VPN service request. However, as pointed previously, the registration request is sent from the mobile node to the foreign agent. This request is relayed by the foreign agent to the home agent. Figure 4 shows that this can only happen over the Internet. Therefore for the foreign agent to be able to contact the home agent over the Internet, the foreign agent must be "transmitting data to an ISP router". Communication cannot occur over the Internet without a router.

5. Finally the applicant argues that Tummala and Giniger do not teach or fairly suggest an ISP server positioned between the ISP router of the FA and an ISP router of the VPN for tunneling between the routers. The Examiner disagrees. Tummala shows an AAA server, considered the ISP server, that creates the VPN and thus tunnels between ISP routers (col. 9, lines 35-40). Giniger is relied upon to show that the an ISP server that tunnels between networks can be "between" the routers since Tummala does not explicitly show this concept.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 6,915,345 to Tummala et al. in view of U.S. Patent Number 6,751,729 to Giniger et al.

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8. As to claim 1, Tummala teaches a system for providing a VPN (Virtual Private Network) service by connecting a VPN to a mobile communication network, comprising: a home agent (HA) in which is stored location information of a mobile node (**col. 10, lines 15-23, the HA is capable of communicating with the mobile node so therefore has stored some form of location information**) and information about the VPN service for the MN (**col. 10, lines 15-23, the HA is capable of contacting the foreign agent so therefore it has information about the VPN service**) are stored when the HA receives from the MN, a location registration request message for the VPN service (**col. 8, lines 22-44**); a foreign agent (FA) for receiving location registration information from the MN, transmitting a location registration request message to the HA, and transmitting data to an ISP (Internet Service Provider) router of an FA network, when receiving a VPN service request (**col. 10, lines 37-53**); an ISP server for managing information on the ISP routers and establishing IP tunneling between the ISP router of the FA network and an ISP router of the VPN (**col. 9, lines 33-40 and col. 10, lines 15-36**); a router network for routing the FA network and the VPN, and receiving and forwarding the data using an IP tunnel to a correspondence node (**col. 10, lines 15-36**); and a VPN server for providing the VPN service (**col. 9, lines 33-40**); however Tummala does not explicitly teach an ISP server positioned between ISP routers for tunneling in between the routers.

Giniger teaches an ISP server positioned between ISP routers for tunneling in between the routers in order to establish a VPN between to disparate networks (**col. 8, lines 28-42 and Figure 1 shows the concept of “between”**).

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of Tummala with regarding to the establishment

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of a VPN over a mobile network with the teachings of Giniger regarding an ISP server for providing a tunnel between ISP routers to form a VPN because an ISP server located between the edge devices can enhance the security of the VPN (Giniger, col. 8, lines 28-42).

9. As to claim 2, Tummala teaches the system as claimed in claim 1, wherein the router network includes a server for searching an edge Internet Protocol (IP) router in the network using an address of the FA (col. 8, line 60-col. 9, line 26).

10. As to claim 3, Tummala teaches the system as claimed in claim 1, wherein the HA prevents the MN from accepting a call request received from a specific node in an IP network while the MN is performing the VPN service (col. 8, line 60-col. 9, line 26).

11. As to claim 4, it is the same as claim 1 with addition of a limitation for performing IP communication with a specific subscriber. Tummala teaches performing IP communication with the mobile node.

12. As to claim 5, Tummala teaches the system as claimed in claim 4, wherein the router network includes a server for searching an edge IP router in the network using an address of the FA (col. 8, line 5-col. 9, line 26).

13. As to claim 6, Tummala teaches the system as claimed in claim 4, wherein the HA prevents the MN from accepting a call request received from a specific node in an IP network while the MN is performing the VPN service (col. 8, line 5-col. 9, line 26).

14. As to claim 7, Tummala teaches the system as claimed in claim 4, wherein the MN transmits an address of the HA and an address of the VPN server to the FA during VPN registration, and performs the VPN service by receiving a temporary ID for use of the VPN from the FA during the location registration (col. 8, line 5-col. 9, line 26).

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15. As to claim 8, Tummala teaches the system as claimed in claim 7, wherein the MN stores an address of the VPN server and an address of a router in the network, received from the FA, and performs the VPN service using the received addresses (col. 8, line 5-col. 9, line 26).

Conclusion

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas B. Blair whose telephone number is (571) 272-3893. The examiner can normally be reached on 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Douglas Blair

DBT



ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER